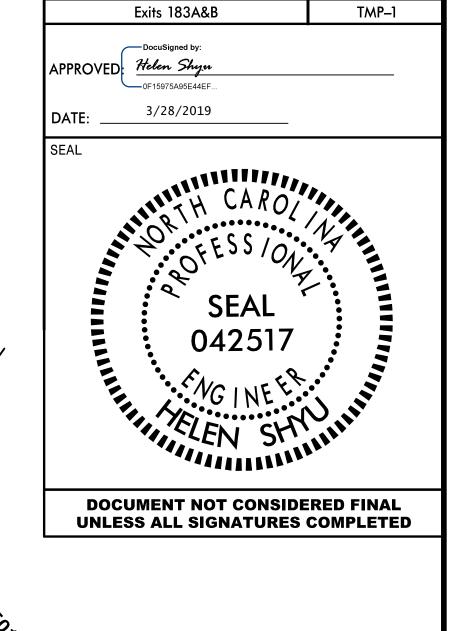
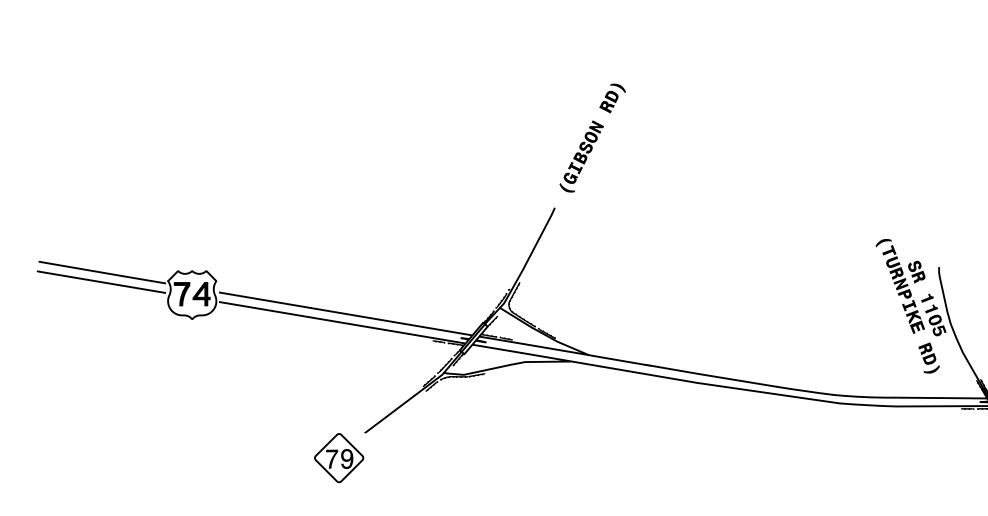
# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

# TRANSPORTATION MANAGEMENT PLAN SCOTLAND COUNTY







ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS DATED PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

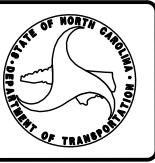
	AND BY REFERENCE HEREBY ARE CONSIDERED A
STD. NO.	<u>TITLE</u>
1101.01	WORKZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURE
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORKZONE SIGNS
1110.02	PORTABLE WORKZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1145.01	BARRICADES - TYPE III
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNNY DRUMS

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TMP-1 TITLE SHEET
TMP-2 GENERAL NOTES AND LEGEND
TMP-3 PHASING
TMP-4 OVERVIEW
TMP-5 DETAIL
TMP-6-10 DETOUR DETAILS

PLANS SUBMITTED TO:

K.C.THORNEWELL, P.E. TRAFFIC CONTROL PROJECT ENGINEER



PLANS PREPARED BY: HNTB NORTH CAROLINA, P.C.

H. SHUE, PEPROJECT ENGINEERJ.A. PHILLIPSPROJECT DESIGN TECHNICIAN

HNTB

NTB NORTH CAROLINA.

HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554 (919)546-8997

# WORK ZONE TRAFFIC CONTROL GENERAL NOTES

MAINTAIN TRAFFIC IN ACCORDANCE WITH DIVISIONS 10 AND 11 OF THE JANUARY 2018 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES & JANUARY 2018 ROADWAY STANDARD DRAWINGS (RSD) AND THE FOLLOWING PROVISIONS:

COORDINATE WITH THE NCDOT RESIDENT ENGINEER IN CHARGE OF ANY PROJECT IN THE VICINITY OF THIS PROJECT FOR ANY WORK THAT MAY AFFECT THE CONSTRUCTION AND THE TRAFFIC CONTROL OF THIS PROJECT.

PERFORM WORK ONLY WHEN WEATHER AND VISIBILITY CONDITIONS ALLOW SAFE OPERATIONS AS DIRECTED BY THE ENGINEER.

PROVIDE APPROPRIATE LIGHTING IN ACCORDANCE WITH SECTION 105-14, STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

OPERATE EQUIPMENT AND CONDUCT OPERATIONS IN THE SAME DIRECTION AS THE FLOW OF TRAFFIC. DO NOT CROSS MEDIANS WITH EQUIPMENT, EXCEPT AT PROPERLY DESIGNATED INTERCHANGES.

USE TEMPORARY LANE CLOSURES (REFER TO ROADWAY STANDARD DRAWINGS NO. 1101.02, SHEETS 4 OF 14) AND TEMPORARY SHOULDER CLOSURES (ROADWAY STANDARD DRAWING 1101.04, SHEET 1 OF 1) TO COMPLETE PROPOSED WORK. MAINTAIN THE EXISTING TRAFFIC PATTERN AT ALL TIMES, EXCEPT IN THE IMMEDIATE WORK ZONE WHERE LANE CLOSURES ARE ALLOWED AS DETERMINED BY THE ENGINEER.

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE ROADWAY STANDARD DRAWINGS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES, MODIFICATIONS MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

#### TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AND/OR SHOULDERS AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

ALL ROADS

MONDAY THRU FRIDAY 6:00 AM - 9:00 AM 4:00 PM - 7:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL **EVENTS AS FOLLOWS:** 

ROAD NAME

ALL ROADS

# HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY. SATURDAY. SUNDAY OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING
- 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS DAY.
- C) DO NOT CLOSE ROAD AS FOLLOWS:

ROAD NAME

DAY AND TIME RESTRICTIONS

US 74 BYPASS

SUNDAY THRU SATURDAY 5:00 AM - 11:00 PM

D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAINS WITHIN THE CLOSED TRAVEL LANE.
- I) DO NOT WORK SIMULANTEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN AN OPEN TRAVELWAY, RAMP. OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

#### TRAFFIC PATTERN ALTERATIONS

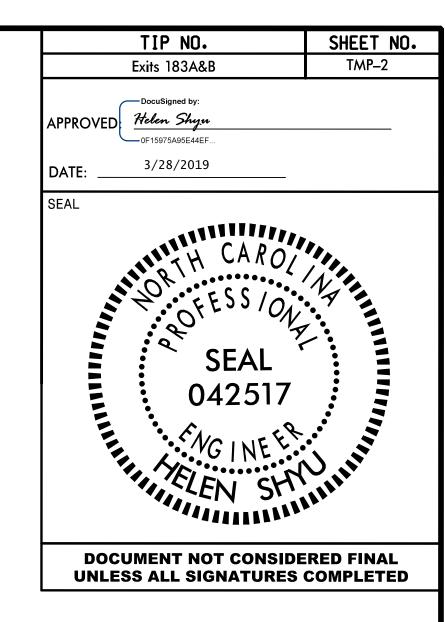
J) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

#### SIGNING

- INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS AND SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- M) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION AND COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

#### TRAFFIC CONTROL DEVICES

- O) WHEN LANE CLOSURES ARE NOT IN EFFECT. SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPENED TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- P) PLACE TYPE III BARRICADES WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- Q) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.
- R) PROTECT THE APPROACH END OF NEWLY INSTALLED OBSTACLES (FOOTINGS/POLES) AT ALL TIMES USING A TRUCK MOUNTED ATTENUATOR (FOR A MAXIMUM 72 HOURS) UNTIL PROPOSED GUARDRAIL IS INSTALLED.



# **LEGEND**

### GENERAL

DIRECTION OF TRAFFIC FLOW

NORTH ARROW

## TEMPORARY SIGNING

PORTABLE SIGN

STATIONARY SIGN

# TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

DRUM

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# **PHASING**

NOTE:

THE TERM RSD DENOTES "ROADWAY STANDARD DRAWING".

(SEE TMP-4 FOR OVERVIEW)

NOTES: STEPS 1 THRU 8 MAY BE COMPLETED IN ANY ORDER.

STEPS 2 AND 3 USE THE SAME DETOUR ROUTE AND SIGNING.

STEPS 6 AND 7 USE THE SAME DETOUR ROUTE AND SIGNING.

ONLY ONE DETOUR ROUTE IS ALLOWED TO BE USED AT THE SAME TIME.

- STEP 1: USING RSD 1101.01 (SHEET 1 OF 3), INSTALL WORK ZONE ADVANCE WARNING SIGNS ON US 74. THEN USING RSD 1101.04 TO CLOSE SHOULDERS AS NEEDED, COMPLETE ALL SIGN REVISIONS, AND INSTALLATIONS AWAY FROM TRAFFIC.
- STEP 2: COMPLETE STEPS 2A THRU 2D IN ORDER.
- STEP 2A: CONSTRUCT FOOTING AND STRUCTURE A AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-6.
- STEP 2B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS EB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9) AND DEVICES AS SHOWN ON TMP-5.
- STEP 2C: INSTALL OVERHEAD STRUCTURE A AND SIGN PANELS #1A, #1B, #2A AND #2B.
- STEP 2D: OPEN US 74 BYPASS EB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 2A.
- STEP 3: COMPLETE STEPS 3A THRU 3D IN ORDER.
  - 3A: CONSTRUCT FOOTING AND STRUCTURE B AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-6.
  - 3B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS EB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9) AND DEVICES AS SHOWN ON TMP-5.
  - 3C: INSTALL OVERHEAD STRUCTURE B AND SIGN PANELS #3A, #3B, #4A AND #4B.
  - 3D: OPEN US 74 BYPASS EB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 3A.
- STEP 4: COMPLETE STEPS 4A THRU 4D IN ORDER.
  - 4A: CONSTRUCT FOOTING AND STRUCTURE C AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-7.
  - 4B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS WB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9).
  - 4C: INSTALL OVERHEAD STRUCTURE C AND SIGN PANELS #5, #6A AND #6B.
  - 4D: OPEN US 74 BYPASS WB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 4A.

- STEP 5: COMPLETE STEPS 5A THRU 5D IN ORDER.
  - 5A: CONSTRUCT FOOTING AND STRUCTURE D AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-8.
  - B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS EB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9).
  - SC: INSTALL OVERHEAD STRUCTURE D AND SIGN PANELS #7A, #7B, #8A, AND #8B.
  - 5D: OPEN US 74 BYPASS EB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 5A.
- STEP 6: COMPLETE STEPS 6A THRU 6D IN ORDER.
  - 6A: CONSTRUCT FOOTING AND STRUCTURE E AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-9.
  - 6B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS WB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9).
  - 6C: INSTALL OVERHEAD STRUCTURE E AND SIGN PANELS 9A, #9B, #10A AND #10B.
  - 6D: OPEN US 74 BYPASS WB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 6A.
- STEP 7: COMPLETE STEPS 7A THRU 7D IN ORDER.
  - 7A: CONSTRUCT FOOTING AND STRUCTURE F AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-9.
  - 7B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS WB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9).
  - 7C: INSTALL OVERHEAD STRUCTURE F AND SIGN PANELS 11A, #11B, #12A AND #12B.
  - 7D: OPEN US 74 BYPASS WB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 7A.
- STEP 8: COMPLETE STEPS 8A THRU 8D IN ORDER.
  - 8A: CONSTRUCT FOOTING AND STRUCTURE G AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. USING RSD 1101.02 (SHEET 4 OF 14) AS NEEDED, CLOSE LANE ADJACENT TO WORK AREA AND COMPLETE INSTALLATION OF FOOTING. PLACE AND COVER DETOUR SIGNS AS SHOWN ON TMP-10.
  - 8B: UNCOVER DETOUR SIGNS AND CLOSE US 74 BYPASS WB TO TRAFFIC USING RSD 1101.03 (SHEET 7 OF 9).
  - 8C: INSTALL OVERHEAD STRUCTURE G AND SIGN PANELS 13A, #13B, #14A AND #14B.
  - 8D: OPEN US 74 BYPASS WB TO TRAFFIC AND COVER/REMOVE ALL DETOURS SIGNS PLACED IN STEP 7A.

APPROVED Helen Shyan

OF15975A95E44EF...

DATE: 3/28/2019

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SEAL

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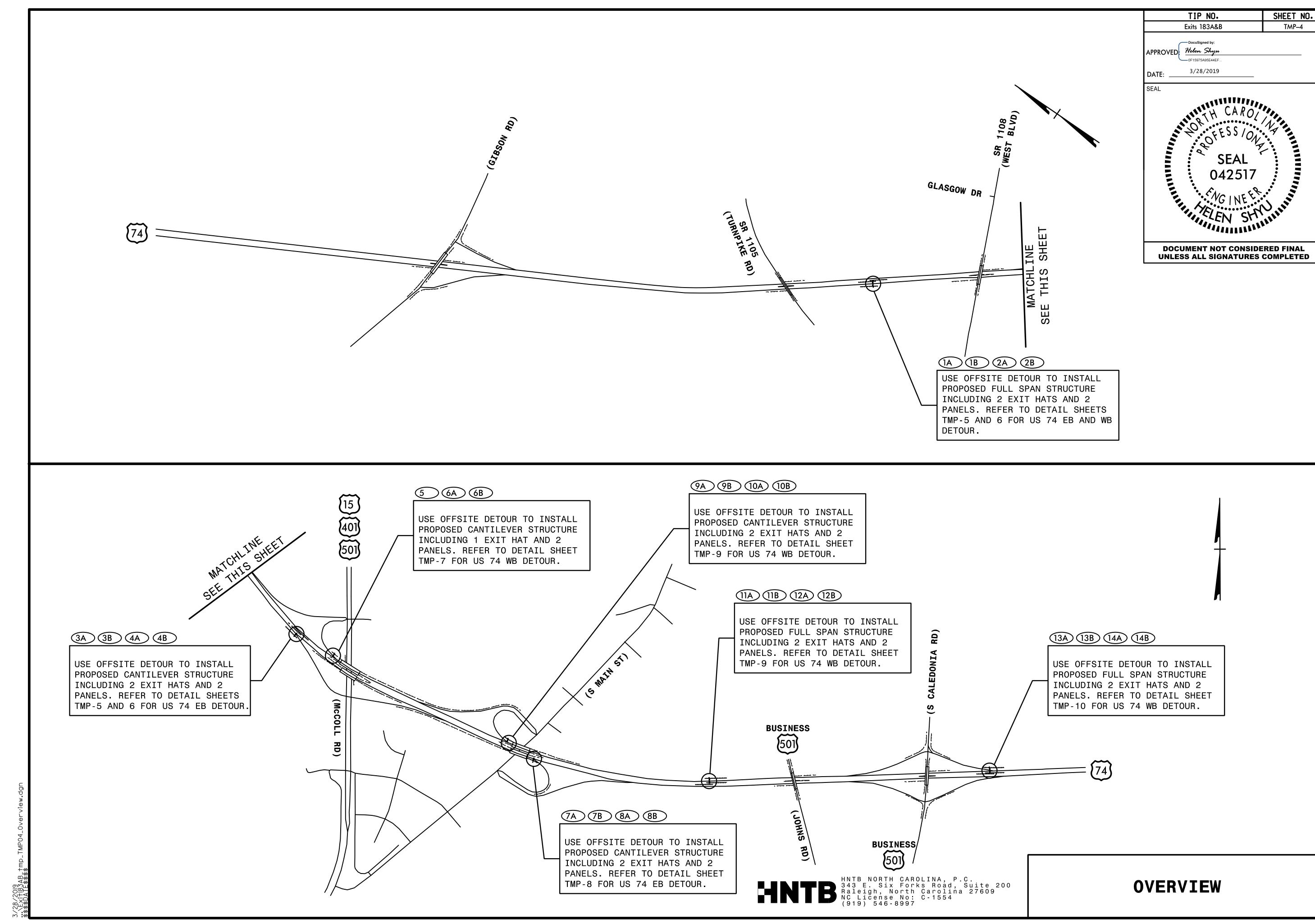
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**UNLESS ALL SIGNATURES COMPLETED** 

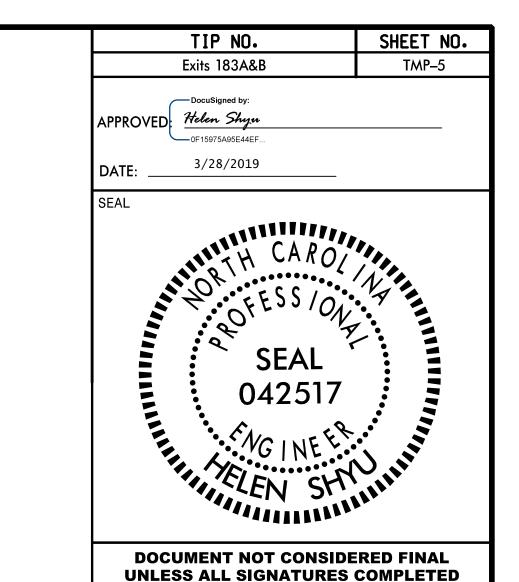
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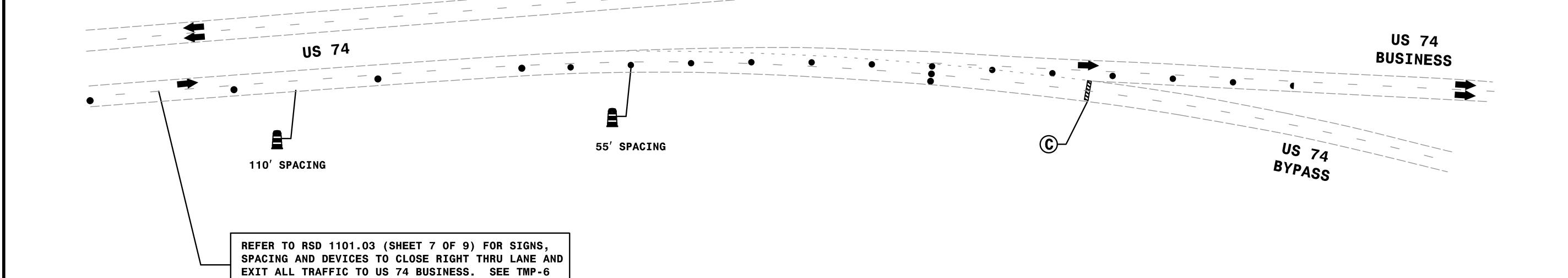




FOR DETOUR DETAIL TO INSTALL SIGN SUPPORTS A AND B INCLUDING SIGNS 1A, 1B, 2A, 2B, 3A, 3B, 4A AND



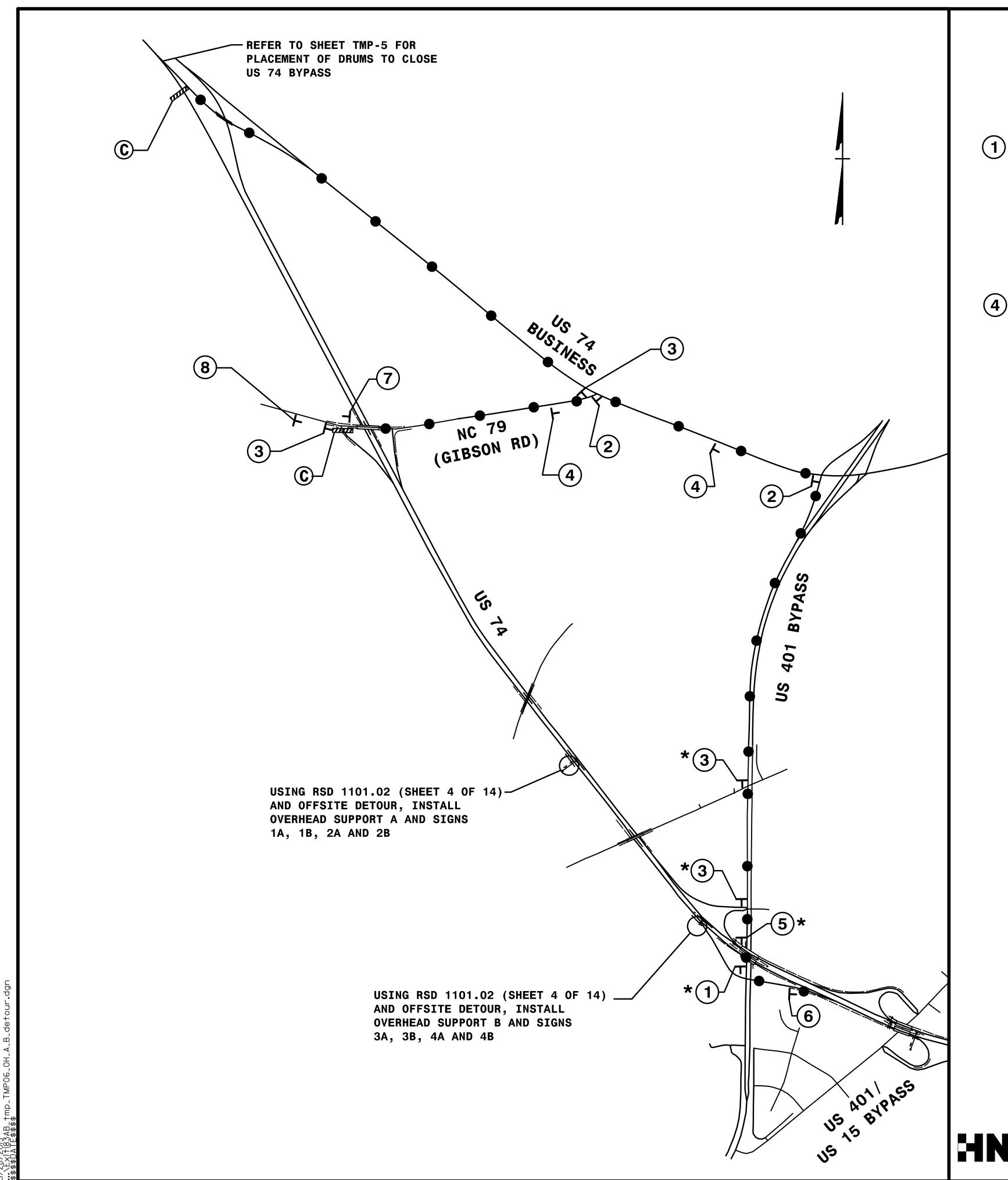
US 74 BUSINESS



SIGN SUPPORT A
SIGNS 1A, 1B, 2A AND 2B
SIGNS SUPPORT B
SIGNS 3A, 3B, 4A AND 4B

HNTB NORTH CAROLINA, P.C.
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Raleigh, North Carolina 27609
NC License No: C-1554
(919) 546-8997

**DETAIL** 



Exits 183A&B

TMP-6

APPROVED

Modern Shyra

Gr. 15875405E,4EE .

DATE: 3/28/2019

SEAL

TOUR M4-8
24" X 12"

M6-1 L
21" X 15"

M6-2
21" X 15"

M6-3
21" X 15"

SEAL

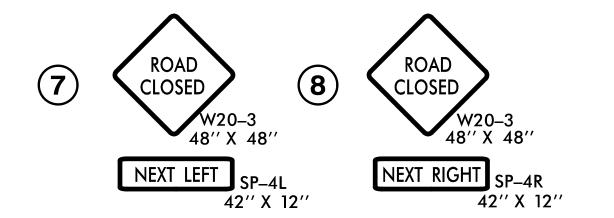
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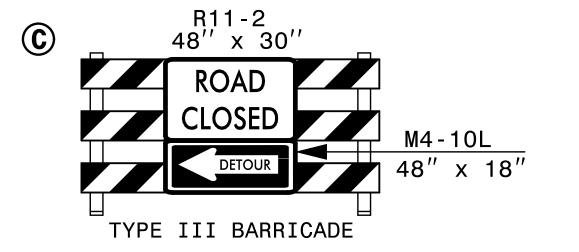
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SHEET NO.



★ SIGNS ARE NEEDED ON BOTH RIGHT AND LEFT SHOULDER ON MULTI-LANE DIVIDED ROADWAYS



SIGN SUPPORT A
SIGNS 1A, 1B, 2A AND 2B
SIGNS SUPPORT B
SIGNS 3A, 3B, 4A AND 4B

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**DETOUR** 

